

Work Order ID 115515

April-02-14 11:16:18 AM

115515

Page 1

Item ID: D3391-025 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Tube Assembly
 Start Date: 4/02/14 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 4/16/14 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: MLS Date: 14-04-02 Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3391	I

100 0.00
100 MORI SEIKI CNC LATHE LARGE
 Mori Seiki Memo 0.00
 Mori Seiki CNC Lathe Large Turn as per Folio FA599 Rev: AA & Dwg D3391 Rev: H
 ****REMOVE STEADY REST AND MACHINIG MARKS****

1 0 KC
14-04-04

110 0.00
110 QC2- Inspect parts off machine FAI/FAIB
 QC Memo 0.00
 Quality Control

1 0 KC
14-04-04

112 0.00
112 QC5- Inspect part completeness to step on W/O
 QC Memo 0.00
 Quality Control

DAS
 27
 9-89
14/4/14

1 0

11
112

11
112

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April-02-14 11:16:19 AM

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Item ID: D3391-025

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Aft Tube Assembly

Start Date: 4/02/14

Start Qty: 1.00

1

Cust Item ID:

Required Date: 4/16/14

Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150

0.00

150

Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Drill (PILOT HOLE) aft cap holes per Dwg D3391 using DT8803

DC 14/04/29

160

0.00

160

CNC Bend 1

BENDING MACHINE - SKIDTUBES

Memo

0.00

CNC Delta 100 Bender

Form as per Dwg D3391 Using Bend Prog 3391025

DC 14/04/29

170

0.00

170

QC

Quality Control

QCS- Inspect part completeness to step on W/O

Memo

0.00

DAS
03
9-89

DP 14-4-29

DP H-4.25

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Item ID: D3391-025

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Aft Tube Assembly

Stop ***NS2***

Start Date: 4/02/14 Start Qty: 1.00

1

Cust Item ID:

Required Date: 4/16/14 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

180

0.00

180

Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Open Aft cap pilot hole to .208" as per Dwg D3391

2-Drill float bag holes using DT8809 as per Dwg D3391(Holes marked "A" Only.

3-Drill wearplate holes as per Dwg D3391 using DT8878(Mid Tube) & DT8217
Wearplate Jig .

*****Do Not Open To Finished Size*****

4-Drill Wearshoe holes as per DWG D3391 using DT8939 locating from 2
previously drilled aft wearplate holes.

5-Open wearplate holes to 0.297" and c'bore as per dwg D3391

6-Open up all float bag holes to 0.328" and c'sink as per Dwg D3391.

7-Deburr

8- Scribe batch # on fwd end

DC 14/04/23

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Item ID: D3391-025 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
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 Start Date: 4/02/14 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 4/16/14 Req'd Qty: 1.00 ***1*** Customer:
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	QC5- Inspect part completeness to step on W/O	0.00							
190									
QC	Memo	0.00							
Quality Control									
200	Chemical Conversion Coat per QSI005 4.1	0.00							
200									
HandFinish	Memo	0.00							
Hand Finishing									
210	QC7-Inspect Chemical Conversion Coat	0.00							
210									
QC	Memo	0.00							
Quality Control									

14-5-1 DGL

DC 14/05/05

April-02-14 11:16:19 AM

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Accept

Setup Start *NS1*

Stop *NS2*

1

Cust Item ID:

Start Date: 4/02/14 **Start Qty:** 1.00

*** 1 ***

Customer:

Required Date: 4/16/14 **Req'd Qty:** 1.00

Reference:

Approvals: **Process Plan:** **Date:** **Tooling:** **Date:**

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Operation Description

Set Up/ Run Hours

Tool ID	Tool #	Plan Code
---------	--------	-----------

Accept Qty	Reject Qty	Reject Number	Insp. Stamp

220

0.00

220

Skidtubes

0.00

Skidtubes

Skidtubes

Memo

1- Instal spacers as per dwg D3391

A/R Magnabond 6398 Batch:

exp. date : 14/05/05

cure time 12hrs as per QSI0015

2- Grind crossbolts flush

3- Back drill using #9 drill

4- Touchup Magnabond

5- Debuur

230

QC5- Inspect part completeness to step on W/O

0.00

230

QC

Memo

0.00

Quality Control

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Item ID: D3391-025 Accept *N900040100* Setup Start *NS1*
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 Start Date: 4/02/14 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 4/16/14 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
235	Pressure Wash per QSI005 4.3	0.00							
235	HandFinish	0.00							
Hand Finishing	Memo AND REALODINE AS PER PAR09-043								
240	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
240	Powdercoat	0.00							
Powder Coating	Memo START TIME: 2:40. OVEN TEMPERATURE: 320 FINISH TIME: 3:10.								
250	QC3- Inspect Part Finish	0.00							
250	QC	0.00							
Quality Control	Memo								

68-6
SL
SVC

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Item ID: D3391-025 Accept *N900040100* Setup Start *NS1*

Revision ID: Stop *NS2*

Item Name: Aft Tube Assembly

Start Date: 4/02/14 Start Qty: 1.00 *1*

Required Date: 4/16/14 Req'd Qty: 1.00 *1*

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260	HandFinishing	0.00							
260	HandFinish	0.00							
Hand Finishing	<p>Memo</p> <p>1-Install inserts as per Dwg D3391</p> <p>2-Install Aft Cap as per Dwg D3391</p> <p>A/ R Sikaflex-241/-291 <u>M1129817</u></p> <p>Sikaflex expiry date: <u>4/1/14</u></p> <p>3- INSTALL WEARPLATES AS PER DWG</p>								
270	QC5- Inspect part completeness to step on W/O	0.00							
270	QC	0.00							
Quality Control	Memo								
280	Identify as per dwg & Stock Location: <u>w16</u>	0.00							
280	Packaging	0.00							
Packaging	Memo								

DAS
38
9-89

14-10-4

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Item ID: D3391-025

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Aft Tube Assembly

Stop

NS2

Start Date: 4/02/14

Start Qty: 1.00

1

Cust Item ID:

Required Date: 4/16/14

Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

290

QC21- Final Inspection - Work Order Release

0.00

290

QC

Memo

0.00

Quality Control



Picklist Print

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Work Order ID: 115515

115515

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 4/02/14

Required Date: 4/16/14

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev B 06-02-07 ECN773 dwg rev. D EC
 IPP Rev:C 06-03-28 Update Manuf. Instructions JLM
 IPP rev D 07.03.20 revF dwg EC
 IPP rev E 07.11.07 rev G dwg ecn 1053p EC verified by: DD
 IPP Rev:F 07-11-13 ECN 1056 DD verified by: EC
 IPP Rev:G 08-09-10 revH as per dwg DD verified by:EC IPP Rev:H
 11.11.14 AS PER REV.I DD verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D4095-047		Manufactured	No			260	Each	18.0000	1	1			
D4095-047													
Wearpad Assembly													

Location	Loc Qty	Loc Code
FP001	18	
102241	2	
108289	16	

D4095-049		Manufactured	No			260	Each	13.0000	1	1			
D4095-049													
Wearpad Assembly													

Location	Loc Qty	Loc Code
FP001	12	
109670	12	
FP002	1	
102216	1	

D6014-090		Manufactured	No			100	Each	69.0000	1	1			
D6014-090													
ALUMINUM EXTRUSION													

Location	Loc Qty	Loc Code
LG003	69	
79742	17	
86063	52	

11 14/04/22

11 14/04/22

11 14/04/22

11 14/04/22

Picklist Print

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Work Order ID: 115515

115515

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 4/02/14

Required Date: 4/16/14

Start Qty: 1.00

Required Qty: 1.00

D3670-4-200

Manufactured No

230

Each

300.0000

4

4

D3670-4-200

Bushing

**

DC 14/08/05

Location

Loc Qty

Loc Code

FG

10

87709

10

LG001

290

103880

39

109108

242

96240

9

D2646

Manufactured No

270

Each

75.0000

1

1

D2646

Aft Cap

**

231 14/09/22

Location

Loc Qty

Loc Code

FG

4

85848

2

90495

2

FP001

71

103306

14

107857

1

110816

18

113830

38

3119656

x1

Picklist Print

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Work Order ID: 115515

115515

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 4/02/14

Required Date: 4/16/14

Start Qty: 1.00

Required Qty: 1.00

D3672-1

Manufactured No

270

Each

1,420.000

2

2

D3672-1

Phenolic Washer

all uloselzz

Location

Loc Qty

Loc Code

FG

10

85222

10

ST060

1410

103845

4

112218

500

113581

500

93886

224

99099

182

x2

ALS4-1032-130

AELS4-1032-130 Purchased

No

260

Each

9,937.000

14

14

ALS4-1032-130

Rivnut

all uloselzz

Location

Loc Qty

Loc Code

FP001

9832

M128649

9832

ST279

48

M128211

48

st510

57

M126109

57

x14

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Shop Packet Print

Page 3

Picklist Print

April-02-14 11:16:22 AM

Page 4

Work Order ID: 115515

115515

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 4/02/14

Required Date: 4/16/14

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-225

AELS8-1032-225 Purchased

No

270

Each

1,490.000

8

8

AI S4-1032-225

Rivnut AHS7-1032-225

Handwritten signature and date 4/10/14

Location

Loc Qty

Loc Code

FG	30	
M127028	30	
FP001	1000	
M128649	1000	
ST280	426	
M127028	10	
M128179	416	
st555	34	
M127092	34	

Handwritten notes and signature

AN3C4A

Purchased

No

270

Each

2,208.000

6

6

AN3C4A

Bolt

Handwritten signature and date 4/10/14

Location

Loc Qty

Loc Code

FG	20	
122814	20	
ST350/513	1000	
M128606	1000	
ST512	3	
124221	3	
ST513	1185	
125388	122	
M127410	1	
M127832	62	
M128634	1000	

Handwritten note: M129520

Handwritten notes and signature

April-02-14 11:16:22 AM

Shop Packet Print

Page 4

Picklist Print

April-02-14 11:16:22 AM

Page 5

Work Order ID: 115515

115515

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 4/02/14

Required Date: 4/16/14

Start Qty: 1.00

Required Qty: 1.00

AN3C5A

Purchased

No

270

Each

705.0000

4

4

AN3C5A

Bolt

Location

Loc Qty

Loc Code

FG

5

11129913

vd

122800

5

ST350

700

M128057

700

NAS1149C0332R

Purchased

No

270

Each

9,644.000

10

10

NAS1149C0332R

WASHER

Location

Loc Qty

Loc Code

GA

1005

125654

1005

ST292

4968

m128591

4968

st510

3671

m126319

61

m127306

2500

m127410

1084

m127831

26

v10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>
--	--	---

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence
		<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

DART AEROSPACE LTD		Work Order:	115515
Description: Float Skidtube (412)		Part Number:	D3391-3
Inspection Dwg: D3391 Rev: I		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

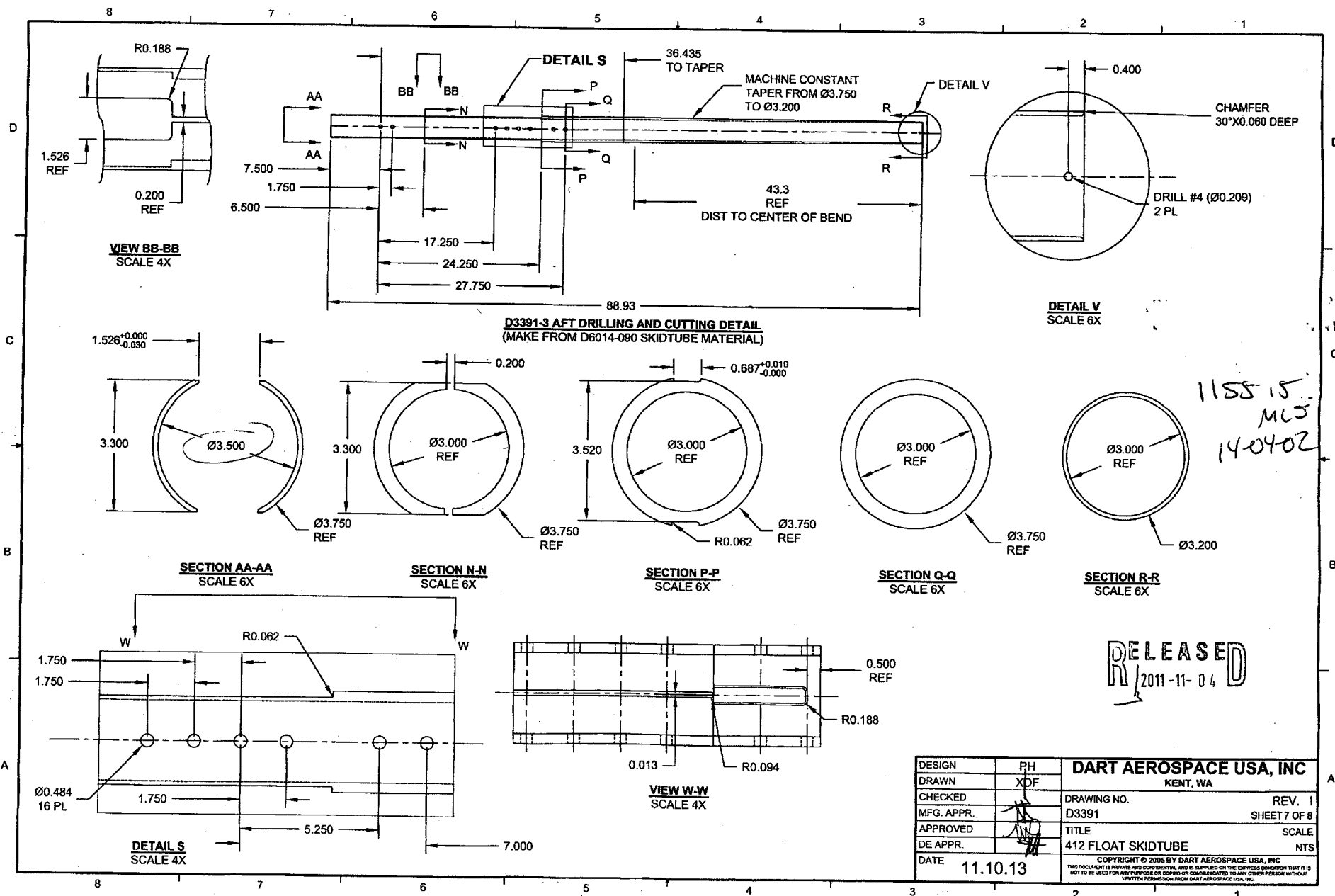
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Lathe Section						
14.000	+/-0.010	14.000	/		TAPE	LG-25
3.500	+/-0.010	3.504	/		VERM	CNL-08
Ø3.200	+/-0.010	3.206	/		"	"
Ø3.750	+/-0.010	3.750	/		"	"
30° x 0.060 chamfer	+/-0.010	30° x .060	/		"	"
88.93	+/-0.030	88.93	/		TAPE	LG-25

Measured by: <i>KC</i>	Date: <i>11/4/14</i>
Audited by: <i>Shp</i>	Date: <i>11/4/14</i>

HAAS Section						
1.526	+0.000/-0.030	1.510	/		Vern	ML-06
7.500	+/-0.010	7.500	/		"	
27.750	+/-0.010	27.750	/		M-tape	ML-08
31.750	+/-0.010	31.750	/		"	
35.250	+/-0.010	35.250	/		"	
3.300	+/-0.010	3.304	/		Vern	ML-06
0.200	+/-0.010	.200	/		"	
3.520	+/-0.010	3.525	/		"	
0.687	+0.010/-0.000	.690	/		"	
R0.062	+/-0.010	R.062	/		R-6	
Ø0.484	+0.005/-0.001	Ø.485	/		Vern	ML-06

Measured by: <i>smf</i>	Date: <i>14/04/28</i>
Audited by: <i>F.K.</i>	Date: <i>14/04/28</i>

Rev	Date	Change	Revised by	Approved
A	06.04.24	New Issue P/O D3391-015/-025	KJ/JLM	
B	06.06.19	Dwg revision update	KJ/JLM	
C	07.04.20	Ø0.208 dimension removed	KJ/JLM	
D	07.09.06	0.400 dimension removed	KJ/JLM	
E	07.11.23	Dwg Rev. updated	KJ/EC/DD	
F	09.04.27	Dimensions updated per Rev H and NCR09-028	KJ/JLM	
G	09.11.16	Dimension 0.200 removed	KJ	
H	11.06.21	Dimension 44.995 removed	KJ	
I	12.05.15	Dwg Rev updated	KJ	
J	12.05.23	Dimension updated	KJ	
K	12.10.15	88.93 dimension removed	KJ	
L	12.11.28	88.93 dimension added	KJ	



DESIGN	RH	DART AEROSPACE USA, INC	
DRAWN	XDF	KENT, WA	
CHECKED		DRAWING NO.	REV. 1
MFG. APPR.		D3391	SHEET 7 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
DATE	11.10.13	<small>COPYRIGHT © 2005 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

